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THE SPANISH DOLLAR AND THE COLONIAL SHILLING

THE object of the present paper is to state the results of an investigation of two questions: (1) What ought the Spanish piece of eight to have been, in weight and fineness, according to the mint laws of Spain, when it was adopted into the monetary system of Anglo-America? and (2) what was it in fact by weight and assay?[1]

The history which interests us begins with the Ordinance of Medina del Campo of 1497.

The Castilian mark contained 4608 Spanish grains, 3550.16 troy grains, 230.0465 metric grams. The fineness of gold was reckoned in *quilates* (24) and *cuartos* (4), corresponding to our carats and carat grains; that of silver was reckoned in *dineros* (12) and *granos* (24).

[1] In writing Chapter XVIII. of my *Financier and Finances of the American Revolution* (1890), I was brought face to face with these questions, and I found them so difficult to answer, on account of the indefinite, defective, and contradictory statements in the literature, that I was driven to the present investigation, approaching the questions from the antecedent history and the original authorities. The Spanish laws are reproduced in full in Heiss, *Descripcion General de las Monedas Hispano-cristianas desde la Invasion de los Arabes*, Madrid, 1865. In regard to the second question, the attempt to reach original authorities has been very unsuccessful. Booksellers at Madrid could not find books the titles of which I found quoted. I caused search to be made amongst the State Papers in London in the hope of obtaining the original report from the mint upon which Queen Anne's Proclamation of 1704 was based, and which would presumably give, in strict technical terms, the result of the mint tests then made. I obtained, however, only another list of the coins with their value in English money, like that given in the Proclamation itself. Noback (*Münz- Mass- und Gewichtsbuch*) must have had in hand some such document as I hoped to get. I have used his statements on the present topic, some of which, contained in the first edition (1858), are omitted in the second (1878). Chalmers (*History of Currency in the British Colonies*, 1893) gives other statements of the first importance for the present purpose, which I have quoted, although even with the courteous assistance of the author, I was not able to reach the original documents. Some perplexities I could not have solved at all without the assistance of his scholarly work.

By the ordinance of 1497 the *excelente* of gold, called "of Granada," was to be 23 quilates and 3 cuartos fine (.989.58), and 65⅓ pieces were to be cut from a marc. The *marc* of silver, eleven dineros and four granos fine (.930.55), was to be bought at the mint for 65 reals and to be cut into 67 reals. The *real* was, therefore, 3.433 grams gross and 3.194 grams fine.[1] It consisted of 34 *maravedis*. The excelente was rated at eleven reals and one maravedi, the intention evidently being to rate the metals at 10 to 1. The real was not a new denomination. There had been such a unit since 1369, being one seventieth of a base mixture of one marc of silver and three marcs of copper, and the maravedi, or thirty-fourth part of this, had been the current unit of account. After 1497 the real became the unit of account and the maravedi was defined as a fraction of it.[2]

The great purpose of the reform of 1497 was to escape from this base money and to introduce a good system. It was undertaken entirely independently of the discovery of America and the new supply of the precious metals. The place at which the Ordinance was dated shows that it was a financial reform in the interest of the great money fair of Medina del Campo. A third species of coin was, however, provided for in that Ordinance, perpetuating the coinage of "*vellon*,"[3] and probably intended for petty transactions. Seven granos of quality, that is 112 grains of weight in silver, were to be mixed into a marc of copper and the mass was to be cut into 96 maravedis. The later writers affirm that, if a man had one marc of these coins, he had the same value as if he had 96 maravedis in silver coin.[4] This enigmatical assertion is explained by Mariana to the effect that such a person would have 51 (56?) maravedis in plate (the maravedi in silver being 2.02 Spanish grains in weight), and the copper, and the labor, which last exceeded 40 maravedis, so that, as he says, the value was fairly accounted for. A maravedi vellon was 2.4 grams, of which about .05 gram was silver. There was, therefore, a complete system of trimetallism, for, since in 1566 it was ordered that vellon should be coined only by royal license, in order not to issue it beyond the needs of trade,[5] there must have been an open mint for it, as for gold and silver, from 1497 on.

[1] The metallic equivalent of 14.138 cents in the fractional coinage of the United States.

[2] De Cantos Benitez, *Escrutinio de Maravedises y Monedas de Oro Antiguas*, Madrid, 1763, p. 83.

[3] The name may be derived from the French *billon*, or from the sheep-skin depicted on the coin.

[4] Mariana, II. 577; Cantos Benitez, 84.

[5] Heiss, I. 326.

During the sixteenth century the amount of silver in the vellon coins was steadily diminished. At the beginning of the seventeenth century they consisted only of copper.[1] The vellon real therefore became the money of account. Its debasement and the incredible confusion of the laws about coinage in the seventeenth century are amongst the chief causes of the decline of Spain.[2] We have to take notice of this debasement, however, for our present purpose, only so far as the presence of a debased coinage by the side of the silver affected the latter.

Under the law of 1497 pieces of eight reals were coined. These, says Heiss,[3] "are the first *pesos* which were coined in Spain. Their intrinsic value has continued to be almost the same until our time. They were known afterwards as *pesos*, *duros*, *duros fuertes*, *thalers*, *dollars*, and *piastres*, and were destined to serve as universal money." The weight of such a piece of eight reals, by the law of its origin, was 550.2088 Spanish grains, 423.716 troy grains, or 27.468 metric grams, .930.55 fine. The pure contents would be 394.2889 troy grains, and the equivalent in English silver coin 55.05 pence.

The Bohemian *Joachimsthaler* (whence "dollar") were made from 1517 on. Each was one-eighth of a marc of Cologne (233.855 grams). In 1566 the fineness was reduced to 14 *loth* 4 *grän* or eight-ninths, so that the pure contents of a thaler were 25.998 grams or 401 grains.[4]

In 1600 and a few following years coins were made in England, for export by the East India Company, corresponding in weight and fineness to the piece of eight, but with other marks.[5] The purpose was to get the use of coins of an established weight and fineness, yet not contribute to the renown of the King of Spain by spreading coins which bore his marks.

It is a remarkable, and should be an instructive fact that the Spanish monarchs of the sixteenth century, who ruled despotically over wider dominions than any mortals had ever ruled over before, who were masters of both the Indies, and possessed all the chief territories from which gold and silver were obtained, were always in financial embarrassment, and that, in 1577, the great money fair of Medina del Campo, the grandest financial institution which Spain ever possessed, was ruined by the act of the king in appropriating the funds

[1] Mariana, II. 581.

[2] Colmeiro, *Hist. de la Econ. Polit. en España*, II. 489.

[3] I. 137.

[4] Zedler's *Encycl.* art. Thaler. Chalmers cites the law of 1566 as fixing the fineness at .875, which would bring the thaler very close to the piece of eight as prescribed in 1497.

[5] Ruding, I. 353.

of the bankers and suspending their payments. He was a great king and his was a "great country." He could pay back the money, but he could not restore the credit.[1]

This course of events, with the progressive debasement of the coinage, called out a large number of writings about the paradoxical effects of winning the Indies, and about the decline of a monarchy which was, according to the current economic theories, under axiomatic conditions of wealth and prosperity. Religious and other prepossessions rendered this literature for the most part futile, but the writings of Juan de Mariana form a striking exception. He was born in 1536 and died in 1623. He was a Jesuit and a Counsellor of the Inquisition. A collection of seven tracts by him was published in 1609.[2] One of these dealt with the debasement of the coinage. In the copy of this book in the Boston Public Library, that tract is entirely wanting, and a clumsy attempt has been made to conceal the excision of its title also from the list, on the title-page, of the tracts which the volume should contain. This is proof that the tract later fell under condemnation and that an attempt was made to put it out of existence. The works of Mariana, however, constitute two volumes in the *Biblioteca de Autores Españoles*. His doctrines of civil liberty and political economy are, in general, such as would befit a free-thinking French abbé of the last quarter of the eighteenth century. He maintains that the king cannot raise or lower the coins without the consent of the people; money has value (1) on account of its weight, fineness and workmanship, and (2) by law, that is, the king may rate it just as he may other commodities; there is great gain in coining reals vellon, since they no longer contain any silver, therefore they will be counterfeited; in spite of the law no one will give more for a coin than its intrinsic value; as money falls prices rise; money, weights and measures are the bases of all transactions, and must be firm like the cement in a building; debasement is like drink given to a patient out of season, it is refreshing at first but then comes more pain; silver is at a premium in vellon.[3]

The premium on silver was not acknowledged by anybody, for it fell under the condemnation of usury and was both heresy and crime. However, from 1625 to 1686, a premium of ten per cent. was recognized and came to be lawful, although it was far below the truth. The tendency of the departure between silver and vellon was to encourage a depreciation of the former.

[1] *Coll. de Doc. Inéd. para la Hist. de España*, XVII. 541; Ehrenberg, *Das Zeitalter der Fugger*, II. 205 *seq*

[2] Joannis Marianae *Tractatus VII.*, Colon. Agripp., 1609.

[3] Mariana, II. 577.

The earliest datum[1] yet found for the actual weight and fineness of the piece of eight by mint test is of 1626, when the coin is reported to weigh 420 grains; standard, .925 in some cases and in others .916.66, so that the pure contents were 388.5 or even 385 grains.[2] The equivalent in sterling silver coins would be 54.25 or 53.761 pence.

In 1642 the real was, by law, diminished in weight, the fineness remaining the same. Instead of 67 reals, 83¼ were to be cut from a marc. Two of the latter were to be taken for mint charge as two of the former had been. The old piece of eight, if of full legal weight and fineness, was equal to 9.94 reals of the new type, but the eight real pieces of the old type, which continued to be coined in America, were rated at ten of the new reals. This enactment seems to have left little trace in the history, the explanation of which fact we may find in the figures just given. It was easier to pay debts in the old coins rated at ten reals than in the new ones. In so far as the old coins had deteriorated in weight and fineness below the legal standard, this advantage was increased. One-tenth of a current piece of eight in 1626 was 38.85, or 38.5 grains of pure silver. A real of 1642 was 39.68 grains. The only actual effect of the act of 1642 was to rate the current old piece of eight at ten reals instead of eight, that is, to scale down debts, in silver, one-fifth. Probably the usual money of account was vellon which had depreciated much more, but over a long time, and the motive of the act was to scale silver so as to get it into use again. The only motive ever stated was to prevent the exportation of the coin by foreigners,[3] which is, in fact, the same motive, only stated, as so often in the history of coinage, in a way to appeal to popular prejudice instead of in a way to avow the truth.

The mint of Peru had not produced correct coins. In 1650, it was ordered that all Peruvian coins in Spain should be taken to the mint and recoined and they were denied currency in Spain. New coins of Peru were described, however, in an ordinance of 1653, bearing pillars and "*plus ultra*," which were approved and allowed currency. The work of the Peruvian mint soon deteriorated again and it was very variable. Debased Peruvian coins had wide cur-

[1] Spanish coins current in England in 1613 were "clipped and impaired" one-third part; Ruding, I. 370.

[2] *Cottoni Posthuma*, Report of the Committee appointed by the Privy Council on the Proposed Enhancement of the Coins, 296.

[3] Heiss, I. 186. The prohibition of the export of precious metals was repealed, in England, in 1663, because "it is found by experience that they are carried in greatest abundance (as to a common market) to such places as give a free liberty for exporting the same;" Ruding, II. 11. The prohibition was restricted to English coin.

rency in Europe and America and they produced great trouble. They were a convenient means of fraud by those who knew on those who did not.

The insane coinage legislation of the seventeenth century lies beyond our present purpose. It was chiefly domestic in its scope, although the peninsular coins found their way abroad and were used fraudulently, just as the Peruvian coins were used, under cover of the prestige of the "Spanish piece of eight." As to the domestic effect, suffice it to say that it is impossible to understand how commerce and industry could go on. We have no information as to the devices by which the public escaped the law. Obey it they could not and did not. The most tyrannical measures were adopted to enforce the trimetallic system with one kind of currency in it which was arbitrary, viz., the vellon or copper. In 1652 it was ordered, by decree, that there should be no discrimination in value or estimation of coins nominally equal, nor any premium for exchanging copper and silver coins of the same denomination, nor any interest rates of any kind demanded or paid between sorts of coin. In 1680 elaborate tariffs of prices, freight rates, wages, etc., were published, wherein the attempt was made to accomplish the same purpose by imposing rates for all kinds of contracts which social activity calls into being.[1]

All these attempts failed. In 1686 a grand reform of the coinage was undertaken. A premium of 50 per cent. on silver over vellon of the same denomination was recognized, and the purpose was so to reconstruct the coinage as to incorporate this premium in the system. Eighty-four pieces (reals) were to be cut from the marc of silver of the ancient standard (.930.55), of which 82 were to be restored to the owner of the metal, or 83 if it was, when offered, on the standard. Seignorage was declared abolished, so that this mulct stands as true cost of coinage.[2] The piece of eight of this coinage, now called an *escudo* and consisting of eight times the real, would weigh 337.96 troy grains; 314.5 fine; that is, its weight was to that of the coin of 1497 as 8 to 10.[3] It was rated by this law at fifteen reals vellon instead of ten (the "ten" being a survival of the law of 1642) in order to take in the 50 per cent. premium on silver. Fifteen reals vellon were 510 maravedis vellon. Inasmuch as this number was not divisible by eight without a fraction, a second

[1] Cantos Benitez, 137.

[2] All mint charge on standard metal had been abolished in England in 1666; Ruding, II. 12.

[3] Cantos Benitez (p. 138), says that it had lost one quarter. As it never was coined up to standard fineness, his statement, if referred to the fine contents, would be very nearly correct.

law, a month later, added two maravedis vellon to the rating of the escudo. One-eighth of 512, or 64 maravedis vellon, were therefore the equivalent of one real silver, while the real vellon still contained 34 maravedis vellon, the ancient traditional number. The premium on silver, however, was not in truth 50 per cent. It was 80 per cent.[1] Therefore the legislation of 1686 was fruitless and the real vellon continued to be the sole money of account. The largest coin of vellon was the quarter-real, rated at about three cents, money of the United States. The rating of gold to silver was 16 to 1. "This high price keeps their gold at home in good plenty, and carries away the Spanish silver into all Europe, so that at home they make their payments in gold, and will not pay in silver without a premium. Upon the coming in of a plate fleet the premium ceases, or is but small, but as their silver goes away and becomes scarce, the premium increases and is most commonly about six per cent."[2] This statement no doubt refers to international payments, the vellon being the domestic currency. In 1737 the number of maravedis vellon to a real was increased to 68, so that the real silver (*real de plata* or *real de plata provincial*) was just double the real vellon.

Turning now once more to such information as we possess about the mint tests of the piece of eight, we find in Noback[3] the facts given in the first two columns of the following table, being the result of tests at the English mint in 1703. The third and fourth columns are now added.

	Weight in grams.	Fineness.	Fine contents; troy grains.	Metallic equivalent in silver pence sterling.
Seville piaster	27.215[4]	.920.833	386.75	54.0056[5]
Seville, new plate	21.772	.918.750	308.68	43.149[6]
Mexican	27.122	.920.833	385.41	53.82
" pillars	27.021	.925	385.71	53.86
" hemispheres	26.982	.906.250	377.34	52.69

Chalmers's table[7] presents the following additional data from English mint tests, the value in sterling alone being now added.

[1] Cantos Benitez, 138.

[2] Sir I. Newton's Report of 1717; *Parl. Hist.*, VII. 526.

[3] First ed., 447, 1061.

[4] 27.216 grams = 17½ pennyweights.

[5] This is the nearest coin in all the lists to one exactly worth 4s. 6d. sterling and having a gross weight of 17½ pennyweights.

[6] The peninsular coin of 1686.

[7] Page 402.

		Weight in grams.	Fineness.	Fine contents; troy grains.	Metallic equivalent in silver pence sterling.
1702	Seville piece of eight	27.21	.919	385.9	53.88
1704	" " "	27.21	.921	386.8	54.012
"	Mexico " "	27.21	.921	386.8	54.012
"	Pillar " "	27.21	.933	392.	54.7387
"	Peru " "	27.21	.905 (?)	380. (?)	53.06 (?)[1]
1717	Seville " "	27.21	.921	386.8	54.012
"	Mexico " "	27.11	.921	385.4	53.816
"	Pillar " "	27.03	.925	385.7	53.85

A scrutiny of the above tables shows (1) that the mints had not worked up to standard and that there was a great variety in their products; (2) that the "piece of eight," when Queen Anne's Proclamation of 1704, which aimed to make that coin the unit of the monetary system of the colonies, was issued, was not a definite unit; (3) that when the Proclamation specified a coin weighing 17½ pennyweights (27.216 grams) and worth 4 s. 6 d., as the true piece of eight, that specification was not warranted by facts. A coin weighing 17½ pennyweights and worth just 4 s. 6 d. would contain 386.694 troy grains fine contents and would be exactly .920.7 fine. It was universally taken for granted, however, in the colonies that "Spanish plate" was on the sterling standard (.925). A coin weighing 17½ pennyweights and .925 fine would be worth 4 s. 6 d. 1 f. Hence such a coin corresponded to the interpretation of "proclamation money," but no such coin had existed since early in the seventeenth century. Full weight dollars were all culled out of the circulation a little later[2], and probably even as early as the time of the Proclamation, because the East India Company paid a premium of two pence per ounce for them for its transactions. All the current pieces of eight and fractions current in the colonies were clipped. In New England this had been carried so far that the money of account was pieces of eight at 15 pennyweights, and at Philadelphia the money of account was pieces of eight at 12 pennyweights. Scarcely a dollar could be met with which weighed 17½ pennyweights.[3] In the proclamations about coins in Ireland in the last third of the seventeenth century, which are the models on which Queen Anne's Proclamation for the colonies is constructed, the piece of eight is always put at 17 pennyweights.[4] In 1667, pieces of eight were bought and imported by the goldsmiths of London at 4 s. 3 d: each.[5] If of sterling fineness, they would weigh 16½ pennyweights.

[1] *I. e.*, so variable as not to be quotable.

[2] Franklin and Hall, *Votes and Proc. H. R. Penn.*, II: 348.

[3] *Doc. Hist. N. Y.*, IV. 1118.

[4] Ruding, II. 19, 23, 39, etc.

[5] Ruding, II. 13.

The Proclamation was, therefore, most unskilfully adjusted to the facts of the case it had to deal with. It greatly increased the burden of debts. The Lords of Trade knew that it would have some effect of this kind, and they considered the advisability of excepting previous contracts, but took no action, perhaps because there had been a steady depreciation by clipping, with advantage to debtors, for twenty-five years.[1] Either they did not know that the enhancement would be in New England 16⅔ per cent. and in Philadelphia nearly 50 per cent., or they had little statesmanship to imagine that their measure would succeed in the face of such facts. The Proclamation was complained of in the colonies as confusing, unintelligible, wrong-headed, and it, as well as the Act of Parliament of 1708 to enforce it, remained without effect at the time and for the immediate purpose.

The manufacture of coins by mill appears to have been introduced at the peninsular mints about 1660,[2] when vellon coins called *moneda de molino* first appear. The silver coins of the sixteenth century bore an irregular row of dots. At the beginning of the seventeenth century these began to be arranged in a true circle, and the circular outline of the coin was made more accurate. The gold coins led in these improvements, the circle of dots (*cordoncillo*) being carried closer to the edge. The silver coins followed in a course of steady improvement in these details, but the piece of eight does not show a true and firm outline until 1709.[3]

Another general reform in the Spanish coinage system was undertaken in 1728. The law began by saying that the mints had not worked up to standard and that the coins made in the Indies were not milled. Both gold and silver coins were now to be made .916.66 fine, like those of the neighboring countries, in order to prevent exportation. The allowance for error in fineness was set at 2 granos, that is, the bottom limit of fineness was set at .909.722. It was expressly provided that this should be a limit of toleration of error in workmanship and not a standard of perfection beyond which the mint should not try to go. Sixty-eight reals were to be cut from the marc of standard silver. The act also declared that there had been imperfections in the assay of bars from the Indies. Care and diligence were now enjoined, and bars were to be exactly marked according to assay. Technical rules of assay were added.

[1] *Penn and Logan Corr.*, I. 209.

[2] The milling process was introduced in England about that time; Ruding, II. 7. A "mill and screw" had been tried there a century earlier; Ruding, II. 342, 345; Hawkins, *Silver Coins of England*, 301.

[3] Plates in Heiss.

Under this law a real should have weighed 3.383 grams as produced by any mint under the Spanish crown; a piece of eight should have weighed 27.064 grams, or 417.65 grains troy, 382.85 grains fine, worth in sterling silver coins 53.46 pence. The mint price of standard silver was eight dollars per marc, and the marc was cut into eight-and-a-half dollars. The mint charge was therefore doubled.[1] A test of these coins in 1765 is reported[2] as showing a gross weight of 26.983 grams, fineness .906, pure contents 377.4 troy grains. The value in sterling silver coin would be 52.7 pence.

In the absence of definite information when milled pieces of eight began to be coined in America, we may assume that it was at this time. Although the Proclamation of 1704 and the Act of Parliament of 1708 defined the piece of eight as above stated, contracts could be and were solved at all times by the payment of the current "milled" dollars by tale. Consequently all fees, contracts, prices, and also all rates of exchange, conformed to the facts of the weight and assay of all milled dollars as just stated after 1728, and whenever Proclamation Money was referred to, this is what it was in fact. In New England, "Proclamation" was often further defined, in statutes, as 6 s. 8 d. per ounce, sterling standard, which was the pine-tree shilling rate, and far above Proclamation, but in practice a Spanish piece of eight always was a discharge for 6 shillings colonial, whatever the laws might say. Seventeen-and-a-half pennyweights worth 4 s. 6 d., put for 6 shillings colonial, gave 386.694 grains pure silver as 6 shillings. The same amount, assumed to be sterling fine, gave 388.5 grains. At 6 s. 8 d. per ounce, 6 shillings colonial would be 399.6 grains of pure silver. As we have just seen, the milled dollars of 1728 and the following years were down to 377.4 grains fine contents. This last was, therefore, the definition of the ultimate money of reference, 1728–1772.

The next change in the Spanish laws was in 1772. The provisions of the law of that date are given in the following paragraph, with some very welcome elucidations. "The Mexican dollar still retains (practically) the legal weight and fineness assigned in 1772 to the earlier Spanish dollar, the standard weight being 27.073 grams and the millesimal fineness being .902.7, but the common system of coinage is to allow 263 grams of alloy to 2444 grams of fine silver and to coin the total gross weight of 2707 grams into one hundred dollars. Consequently each dollar is coined to weigh 27.07 grams (or 417.75 grains), and to have a fine content of 24.44 grams (or 377.13 grains), the fineness being .902.844 *per*

[1] Arguello, *Mem. de la Acad. de la Hist.*, VIII. 13.

[2] Chalmers, 409.

mille, but the fineness stamped on the dollar is .902.7 or 10 din. 20 grs. in earlier fashion. Apparently the difference between the old Spanish and modern Mexican standards of weight arises from the fact that the Castilian marc, as used in Spain, was a small fraction lighter than the marc used in Mexico."[1] The dollar of 1772 was equivalent, if it was conformed to the law, in sterling silver coins, to 52.66 pence; in the federal dollar of 1792, to $1.016. Assays made under the direction of Robert Morris, in 1782, showed that the pure contents of the dollar tested were 373 grains.[2] Hamilton, in 1791,[3] found that the assays varied greatly. The coin which he thought best had 370.933 grains fine contents. Noback[4] says that, by an actual test, Spanish dollars coined before 1848, taken in great numbers, show an average of forty-one and three-fifths pieces per kilogram fine, or 24.038 grams (370.95 grains) fine each. The metallic equivalent in sterling silver would then be 51.8 pence and in federal dollars $0.9992.

If we disregard the laws of 1642 and 1686 as domestic only, the dollar, as a world-coin, fell, between 1497 and our own times, according to actual tests (assuming that it started in 1497 at the standard of the law) from 394.29 grains of pure silver to 370.95 grains, or 5.9 per cent.

The pieces of eight were introduced into the colonies by commercial intercourse and custom. At different times and in different colonies they were rated differently in the traditional denomination "shillings," the motive being the belief that, by rating them at more shillings, they could be drawn away from neighboring colonies. This strife between the colonies is alleged in the Act of Parliament to enforce the Proclamation[5] as the motive for the Act, and it is to be found adduced as a motive for legislation in a document signed by Sir Isaac Newton with others.[6] It was a current notion of the period in Europe. Of course the rating of the dollar in shillings in any colony served only to define a shilling in the money of account of that colony, it being agreed or ascertained what was the weight of the piece of eight then current there; in other words, how much the current dollar had been clipped there at the time of speaking. This definition did not depend upon the *average* weight of the current coins, but always approximated closely to the worst of them at a given time, for the clipping went on faster as it became worse, and

[1] Chalmers, 393.
[2] *Dip. Corr. Rev.*, XII. 93.
[3] *American State Papers*, folio, Finance, I. 91.
[4] Second ed., 565.
[5] *Stat. at Large*, III. 593; 6 Anne, c. CXXX.
[6] MS. Report, Dec. 19, 1703.

its tendency was discounted. Another fact which must never be forgotten was that there was another money of account, in each colony, by the side of the silver coin, viz., the barter currency. A barter currency is capable of almost unlimited and steady depreciation. As it depreciated, it forced further depreciation of the silver which otherwise could not exist by the side of it. By a kind of paradox, it was not until paper money had been used to excess, so that the unit from which it started was entirely lost, and there was freedom to select any unit as a new point of departure, that recourse was had, in New England, to the Proclamation money. At its promulgation the Proclamation, like every other act of the home government which the colonists did not like, was nullified. It did not introduce the dollar and did not define it, yet, when all other standards and definitions had been lost, it furnished a standard of reference (not simple and definite) which was taken as a new point of departure, or as a common term in the midst of confusion, discrepancy and doubt.

If six colonial shillings were a dollar, twenty shillings, or a colonial pound, would be 3⅓ dollars, whatever the dollars might be. If the dollars were each equal to 54 pence sterling, each one would weigh 418.0603 grains sterling, and one pound sterling would be four and four-ninths dollars. If then the dollars in which the colonial shillings were reckoned were the same as the latter (418 grains), a pound sterling was four-thirds of a pound colonial, or exchange was at 133⅓ when it was at par. Just in so far as the current dollar in any colony was below 418 grains the "par" of exchange rose, and when it had stood for some time at any point, habit caused that point to be regarded as the just and true rate of exchange. In 1700–12, in New England, silver was at 8 shillings per ounce, which meant that the current piece of eight, assumed sterling, weighed 360 grains. Par of exchange was about 155. After 1728 the true metallic par was 136 (with minute fluctuations according to the workmanship of the Spanish mints) if reckoned, as it usually was, in the new milled coins. We can well understand, therefore, the difficulty experienced by the American statesmen after the War of the Revolution in ascertaining what a dollar had been. The Board of Treasury, in 1786, proposed a dollar of 375.64 grains fine, and they found that the ratio of the metals was 15.6 to 1.[1] Hamilton thought that it was 15 to 1. It probably was about 15¼ to 1, silver being a little lower here than in England. The most valuable and important statement in Hamilton's report on the mint[2] is that, in the confusion of the war period, which

[1] State Dep. MSS., Bd. Treas., No. 139, 131.

[2] *American State Papers*, folio, Finance, I. 91.

affected paper, silver, and gold, a dollar had been 24.75 grains of pure gold. At 15¼ to 1, this would correspond to 377.43 grains of pure silver, which, as appears above, was very close to the proper legal contents of a Spanish dollar by the law of 1772. Hamilton, assuming the ratio to be 15 to 1, derived from the "ideal" gold dollar his silver dollar, 371¼ grains fine.

Evidently it was a great evil that the coin of reference, or of account, as the case might be, was manufactured by a foreign mint, which did not work accurately, but could not be controlled by those whose interests were most affected. If the English authorities had established a mint in the colonies,[1] that step would have served their purpose much better than what they did, and it would also have tended against paper-money, which the Proclamation certainly tended to encourage, by its confused and complicated bearing on the facts of the case.

W. G. SUMNER.

[1] A proposition to set up a mint was one of the immediate incentives to the policy of the Proclamation; Ruding, II. 59.